

Examiner-Initiated Interview Summary	Application No. 10/656,769	Applicant(s) VARNUM ET AL.	
	Examiner Zachary Skelding	Art Unit 1644	

All Participants:

(1) Zachary Skelding.

(2) Christopher Singer.

Status of Application: _____

(3) _____

(4) _____

Date of Interview: 12-21 and 12-26-07

Time: _____

Type of Interview:

- ☒ Telephonic
☐ Video Conference
☐ Personal (Copy given to: ☐ Applicant ☐ Applicant's representative)

Exhibit Shown or Demonstrated: ☐ Yes ☐ No

If Yes, provide a brief description:

Part I.

Rejection(s) discussed:

Claims discussed:

Prior art documents discussed:

Part II.

SUBSTANCE OF INTERVIEW DESCRIBING THE GENERAL NATURE OF WHAT WAS DISCUSSED:

See Continuation Sheet

Part III.

- ☒ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview directly resulted in the allowance of the application. The examiner will provide a written summary of the substance of the interview in the Notice of Allowability.
☐ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview did not result in resolution of all issues. A brief summary by the examiner appears in Part II above.


 (Examiner/SPE Signature)

 (Applicant/Applicant's Representative Signature – if appropriate)

Continuation of Substance of Interview including description of the general nature of what was discussed: On 12-21-07 the Examiner called applicant to discuss amending the claims to put the case into condition for allowance. On 12-21-07 Applicant emailed the Examiner a clean copy of the proposed amended claims (attached herewith). On 12-26-07 applicant and the Examiner agreed on additional clarifying language which the Examiner incorporated into the Examiner's amendment of the claims, putting the case into condition for allowance.

Skelding, Zachary S.

EMAIL REQUESTED BY
THE EXAMINER

From: Singer, Chris [singer@mbhb.com]
Sent: Friday, December 21, 2007 6:54 PM
To: Skelding, Zachary S.
Cc: Hehman, Kymne - LAW
Subject: US Patent Application Serial No: 10/656,769 - Claims
Attachments: USSN 10656769_Claims_2007DEC21.doc

Z.S.S. 12-26-07

Dear Examiner Skelding:

Please see the attached document containing a clean version of claims for US Patent Application serial number 10/656,769. Should you have any questions or comments, please feel free to contact me using the information below.

Sincerely,
Chris Singer

US Reg. No. 48,701

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12/26/2007

Page 1 of 7

1. An isolated antibody or an antigen binding fragment thereof, that specifically binds human interleukin-1 receptor type 1 (IL-1R1), comprising a heavy chain and a light chain, wherein the heavy chain comprises a heavy chain variable region comprising SEQ ID NO: 16, or wherein said antigen binding fragment comprises an N-terminal or C-terminal deletion of SEQ ID NO: 16 wherein the antigen binding fragment comprises at least SEQ ID NO: 63, SEQ ID NO:66, and SEQ ID NO: 69.

2. An isolated antibody or an antigen binding fragment thereof, that specifically binds human interleukin-1 receptor type 1 (IL-1R1), comprising a heavy chain and a light chain, wherein the light chain comprises a light chain variable region comprising SEQ ID NO: 18, or wherein said antigen binding fragment comprises an N-terminal or C-terminal deletion of SEQ ID NO: 18 wherein the antigen binding fragment comprises at least SEQ ID NO: 71, SEQ ID NO: 73, and SEQ ID NO: 75.

3-9. (Canceled)

10. An isolated antibody or an antigen binding fragment thereof, that specifically binds human interleukin-1 receptor type 1 (IL-1R1), wherein the antibody comprises a heavy chain variable region comprising SEQ ID NO: 16, or the antigen binding fragment thereof, and a light chain variable region comprising SEQ ID NO: 18, or the antigen binding fragment thereof, wherein the antigen binding fragment of the heavy chain variable region comprises an N-terminal or C-terminal deletion of SEQ ID NO: 16 wherein the antigen binding fragment of the heavy chain variable region comprises at least SEQ ID NO: 63, SEQ ID NO:66, and SEQ ID NO: 69 and the antigen binding fragment of the light chain variable region comprises an N-terminal or C-terminal deletion of SEQ ID NO: 18 wherein the antigen binding fragment of the light chain variable region comprises at least SEQ ID NO: 71, SEQ ID NO: 73, and SEQ ID NO: 75.

11-31. (Canceled)

32. The antigen binding fragment of claim 1, 2, or 10, wherein the heavy chain and light chain of the antigen binding fragment are connected by a flexible linker to form a single-chain antibody.

33. The antigen binding fragment of claim 32, which is a single-chain Fv antibody.

34. The antigen binding fragment of claim 1, 2, or 10, which is a Fab antibody fragment.

35. The antigen binding fragment of claim 1, 2, or 10, which is Fab' antibody fragment.

36. The antigen binding fragment of claim 1, 2, or 10, which is a (Fab')₂ antibody fragment.

37. The antibody or antigen binding fragment thereof, of claim 1, 2, or 10, which is a fully human antibody or antigen binding fragment.

38. The antibody or antigen binding fragment thereof, of claim 1, 2, or 10, wherein the antibody, or antigen binding fragment thereof, inhibits binding of IL-1 to human IL-1R1 receptor.

39-45. (Canceled)

46. An isolated antibody comprising:

- a. human heavy chain framework regions, a human heavy chain CDR1 region comprising SEQ ID NO: 63, a human heavy chain CDR2 region comprising SEQ ID NO: 66, and a human heavy chain CDR3 region comprising SEQ ID NO: 69; and
- b. human light chain framework regions, a human light chain CDR1 region comprising SEQ ID NO: 71, a human light chain CDR2 region

comprising SEQ ID NO: 73, and a human light chain CDR3 region comprising SEQ ID NO: 75.

47.-56. (Canceled)

57. The antibody or antigen binding fragment thereof of claim 10, which is an IgG2 antibody or antigen binding fragment.

58. The antibody or antigen binding fragment thereof of claim 10, which binds specifically to the amino acid sequence of SEQ ID NO: 76.

59. The antibody or antigen binding fragment thereof of claim 10, wherein the antibody or antigen binding fragment thereof binds specifically to a portion of the amino acid sequence of human IL-1R1, wherein the portion of the amino acid sequence to which the antibody specifically binds comprises the amino acid sequence YSV.

60-61. (Canceled)

62. A composition comprising a pharmaceutically acceptable carrier, excipient or diluent, and the antibody or antigen binding fragment thereof of claim 10.

63. A pharmaceutical composition comprising a pharmaceutically acceptable carrier, excipient or diluent and a therapeutically effective amount of the antibody or antigen binding fragment thereof of claim 10.

64. An isolated antibody or an antigen binding fragment thereof that specifically binds human interleukin-1 receptor type 1 (IL-1R1), comprising a heavy chain and a light chain, wherein the heavy chain comprises a heavy chain variable region comprising the amino acid sequence of SEQ ID NO: 80, or wherein the antigen-binding fragment comprises an N-terminal or C-terminal deletion of SEQ ID NO: 80 wherein the antigen binding fragment comprises at least SEQ ID NO: 63, SEQ ID NO: 66, and SEQ ID NO:

69.

65. An isolated antibody or antigen binding fragment thereof that specifically binds human interleukin-1 receptor type 1 (IL-1R1), comprising a heavy chain and a light chain, wherein the light chain comprises a light chain variable region comprising the amino acid sequence of SEQ ID NO: 81, or wherein the antigen-binding fragment comprises an N-terminal or C-terminal deletion of SEQ ID NO: 81 wherein the antigen binding fragment comprises at least SEQ ID NO: 71, SEQ ID NO: 73, and SEQ ID NO: 75.

66. An isolated antibody or antigen binding fragment thereof that specifically binds human interleukin-1 receptor type 1 (IL-1R1), wherein the antibody comprises a heavy chain variable region comprising the amino acid sequence of SEQ ID NO: 80 or the antigen binding fragment thereof and a light chain variable region comprising the amino acid sequence of SEQ ID NO: 81 or the antigen binding fragment thereof, wherein the antigen-binding fragment of the heavy chain variable region comprises an N-terminal or C-terminal deletion of SEQ ID NO: 80 wherein the antigen binding fragment comprises at least SEQ ID NO: 63, SEQ ID NO: 66, and SEQ ID NO: 69, and the antigen binding fragment of the light chain variable region comprises an N-terminal or C-terminal deletion of SEQ ID NO: 81 wherein the antigen binding fragment comprises at least SEQ ID NO: 71, SEQ ID NO: 73, and SEQ ID NO: 75.

67. An isolated antibody that specifically binds human interleukin-1 receptor type 1 (IL-1R1), comprising a heavy chain and a light chain, wherein the heavy chain comprises a heavy chain variable region comprising SEQ ID NO: 80.

68. An isolated antibody that specifically binds human interleukin-1 receptor type 1 (IL-1R1), comprising a heavy chain and a light chain, wherein the light chain comprises a light chain variable region comprising SEQ ID NO: 81.

69. An isolated antibody that specifically binds human interleukin-1 receptor type 1

5

(IL-1R1), wherein the antibody comprises a heavy chain variable region comprising SEQ ID NO: 80, and a light chain variable region comprising SEQ ID NO: 81.

70. The antigen binding fragment of any of claims 64, 65, or 66, wherein the heavy chain and light chain are connected by a flexible linker to form a single-chain antibody.

71. The antigen binding fragment of claim 70, which is a single-chain Fv antibody.

72. The antigen binding fragment of any of claims 64, 65, or 66 which is a Fab antibody fragment.

73. The antigen binding fragment of any of claims 64, 65, or 66 which is Fab' antibody fragment.

74. The antigen binding fragment of any of claims 64, 65, or 66 which is a (Fab')₂ antibody fragment.

75. The antibody or antigen binding fragment thereof of any of claims 46, 64, 65, 66, 67, 68, or 69 which is a fully human antibody or antigen binding fragment.

76. The antibody or antigen binding fragment thereof of any of claims 46, 64, 65, 66, 67, 68, or 69 wherein the antibody, or antigen binding fragment thereof, inhibits binding of IL-1 to human IL-1R1 receptor.

77. The antibody or antigen binding fragment thereof of any of claims 46, 64, 65, 66, 67, 68, or 69 which is an IgG2 antibody.

78. The antibody or antigen binding fragment thereof of any of claims 46, 64, 65, 66, 67, 68, or 69 which binds specifically to the amino acid sequence of SEQ ID NO: 76.

79. The antibody or antigen binding fragment thereof of any of claims 46, 64, 65, 66,

67, 68, or 69 wherein the antibody or antigen binding fragment thereof binds specifically to a portion of the amino acid sequence of human IL-1R1, wherein the portion of the amino acid sequence to which the antibody specifically binds comprises the amino acid sequence YSV.

80. A composition comprising a pharmaceutically acceptable carrier, excipient or diluent, and the antibody or antigen binding fragment thereof of any of claims 46, 64, 65, 66, 67, 68, or 69.

81. A pharmaceutical composition comprising a pharmaceutically acceptable carrier, excipient or diluent and a therapeutically effective amount of the antibody or antigen binding fragment thereof of any of claims 46, 64, 65, 66, 67, 68, or 69.

7